

# Strategic Energy Investment Advisory Board October 16, 2008

Proposed FY '09 Programs

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For additional information, please visit: www.Energy.Maryland.Gov

# **Strategic Energy Investment Fund**

# **FY '09 Proposed Programs**

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# **EmPOWERing Households**

# **Direct Rebates to all Marylanders**

# **Program Description**

The Strategic Energy Investment Act of 2008 provides for direct consumer rebates to all Maryland residents. Specifically, the statute requires that 23% of the moneys received each year be allocated to "provide rate relief by offsetting electricity rates of residential customers, including an offset of surcharges imposed on ratepayers under §7-211 of the Public Utility Companies Article, on a per customer basis and in a manner prescribed by the Public Service Commission."

#### **Target Market**

This program is targeted to all residential electricity customers in Maryland.

#### **Implementation Strategy**

The Public Service Commission (PSC), in coordination with the Maryland Energy Administration (MEA) and the electric utilities, will administer the bill credit in the current fiscal year. The funds will be allocated to every household in Maryland. The PSC plans to conduct a rulemaking on how best to disperse the funds, including determining if the credit should be provided as an annual credit, a quarterly credit to match the quarterly RGGI auctions, or some other mechanism.

<u>Program Benefits</u> - All residential Marylander electricity customers will see a reduction in their bill without any need to sign up. Approximately \$7.5 million is expected to be available for residential rate relief (based on two auctions, each raising \$16.3 million for Maryland).

# **EmPOWERing Households**

# **Home Energy Efficiency Retrofits**

# **Program Description**

The primary objective of the Home Energy Efficiency Retrofits (HEER) Program is to motivate residential energy consumers to use both whole-house and individual measure approaches to reducing energy consumption when considering home improvements such as remodeling, new heating and air conditioning equipment (HVAC), replacing windows, or adding insulation. This program would utilize the Home Performance with ENERGY STAR (HPWES) Program, incentives on individual measures, and consumer events to encourage residential customers to make their homes more energy-efficient.

In the HPwES Program, rather than focusing on a single component, the homeowner is provided with an assessment of how a combination of improvements, such as sealing air and duct leaks, adding insulation, improving the HVAC system and upgrading lighting and appliances will result in a more comfortable home, with lower energy consumption.

MEA may also provide incentives to residential customers who want to improve the efficiency of their home by utilizing individual measures such as duct sealing, air sealing, or increased insulation, for example. Incentives for these measures will be increased if the customer installs them as part of a comprehensive HPwES package. This is to motivate the customer to do even more to reach deeper savings in their home.

To heighten awareness of these options to increase the energy efficiency of people's homes, MEA will collaborate with Maryland utilities and other organizations in conducting a series of events open to the public. These events will be designed to educate and expose consumers to programs, products and technologies they can use in their home to decrease their energy consumption.

#### **Target Market**

The target market is residential customers considering upgrades and improvements to their home. People who rent their home are also encouraged to participate in any way they can. Property owners of residential properties are also eligible to participate. HVAC, remodeling, air sealing and insulation and weatherization contractors and other program partners interested in offering comprehensive home energy efficiency services to their customers.

#### **Incentive Strategy**

#### **HPwES**

MEA is encouraging the Public Service Commission (PSC) to approve utility plans to offer the Home Performance with ENERGY STAR Program in collaboration with MEA. MEA will offer infrastructure development components like contractor training and certification as well as quality assurance of home improvement projects. The utilities will offer marketing and core incentives to consumers to encourage participation in the program. However, MEA may provide an additional incentive to encourage energy efficiency investments to achieve a very high level of energy savings. MEA is reviewing possible options for residential energy efficiency financing to be implemented in the future.

#### **Other Building Improvements**

MEA will develop and provide incentives for other measures to increase the efficiency of customers' homes. These incentives will be based, in part, on the specific products and incentives levels for which the utilities are approved by the PSC. For example, MEA is considering providing a rebate to consumers who hire professional duct sealers to improve their home's building envelope.

# **Program Implementation Strategy**

Key elements of the **Home Performance with ENERGY STAR Program** implementation strategy include:

- Contractor recruitment and training: The implementation vendor will recruit HVAC, remodeling, insulation and weatherization contractors and other trade allies interested in offering comprehensive home energy performance services to their customers, and arrange for them to participate in the required training. Contractors are required to sign a participation agreement and abide by all program protocols and reporting requirements. The program will offer support of contractors in the following ways:
  - Training on program policy and procedures
  - Program sponsored technical and quality installation training
  - Program sponsored certification testing
  - Training and certification testing "scholarships" where these costs present a potential financial hardship to individual technicians and small contracting companies
  - Program sponsored business-operations and sales training
- Customer recruitment: The primary customer recruitment mechanism will be the direct
  marketing activities of participating contractors. However, MEA or its implementation
  contractor will also engage in direct marketing to customers as well through the individual
  measure incentive program and consumer events.
- Home Energy Assessment: Participating contractors will provide energy assessments for
  interested customers for a fee. During the audit, and with the customer's approval, the
  contractor may install some basic energy efficiency products like CFLs and pipe insulation. The
  audit will estimate potential energy savings due to infiltration and heat loss through walls and
  attics and test appliances and equipment that use combustible fuels for safety and efficiency. In
  addition, the assessment will include identification of the age and size of the HVAC unit and the
  last service date, as well as an assessment of duct leakage and insulation. The report will be
  presented to the customer with recommendations for upgrades and information about available
  rebates.
- Implementation: If the customer elects to proceed with any of the audit recommendations that are eligible for implementation incentives through the HPwES Program or other MEA or utility programs, the home performance contractor will conduct the work or arrange for the work to be conducted with a qualified contractor.
- Project verification: MEA will site-verify a certain percentage of installations to monitor and verify energy savings.

Key Elements of the Individual Measure Incentive Program implementation strategy include:

 Contractor participation and training to effectively and properly deliver individual efficiency measures to customers.

- Customer recruitment efforts will center on a public education campaign implemented by MEA and consumer events.
- Implementation of efficiency measures will occur by contractors at the request of consumers. Some measures may be able to be installed by the customer if he/she is technically proficient enough to enable them to "do it themselves".
- MEA will site verify a certain percentage of installations to monitor and verify energy savings.

Key elements of the **Consumers Events** implementation strategy include:

- Development of new public events and greater participation in existing events such as trade shows and home & garden shows.
- Other events could include a Home Energy Makeover Contest. A description of this type of program follows:
  - The Maryland Home Performance with ENERGY STAR (HPwES) Program will sponsor a Home Energy Makeover contest. This contest will enhance awareness of the HPwES Program by offering a complete energy retrofit of a home valued at up to \$25,000. By winning the contest, the homeowner's house may be eligible for energy efficiency upgrades such as: air & duct sealing, upgraded insulation, HVAC and water heater repair or replacement, energy-efficient lighting and appliances, and other products and services. The Maryland HPwES Program will partner with area businesses to offer these products and services. A complete marketing campaign including print, radio, and TV ads will spread the word about the contest and the Maryland Home Performance with ENERGY STAR Program.
- Other events would be offered in collaboration with Maryland utilities and could include giveaways of energy-efficient products like compact fluorescent light bulbs (CFLs), expanding foam sealant, low-flow showerheads and faucet aerators.

#### **Consumer Participation**

A consumer would participate in the Program when they are remodeling their home or upgrading a component of the home such as heating or air conditioning equipment, or windows. A consumer would also participate in the program because they have desire to reduce energy use and are seeking help on how to do it.

#### **Program Partners**

Contractors and trade representatives in the HVAC, insulation, weatherization, and home improvement industries are actively recruited to partner in this program. Participating contractors may be required to sign a participation agreement, pass certification tests and abide by program protocols and reporting requirements.

#### **Eligible Measures**

Customer measures which may be eligible to receive incentives in this program may include measures which save energy and are cost-effective from the customer's economic perspective. The list of eligible customer measures are likely to include:

- CFL bulbs and other low-cost measures installed at the time of the audit
- Sealing of the home to reduce infiltration
- Sealing and insulation of ductwork if present in the home
- Adding additional insulation to the home were possible and cost-effective

- ENERGY STAR windows
- ENERGY STAR replacement refrigerators, clothes washers and dishwashers when identified as cost-effective in the energy audit.

In addition to the measures listed above, savings opportunities such as high efficiency HVAC equipment and lighting will be identified in the energy audit. These measures may be eligible for incentives through other MEA or utility residential energy efficiency programs. In addition to consumer measures, the Program will also offer contractor training to support installation and contractor certification.

# **Measurement & Verification Strategy and Program Evaluation**

Energy savings estimates for projects in this program will be available from the U.S. EPA approved software programs used by the contractors to evaluate customers' homes. Field verification of measure installation will be made for a statistically significant sample of projects.

## **Program Benefits**

- Homeowners save an average of 20 percent on their annual energy bill after participating in the HPwES program. This equates to approximately \$400 in annual savings for a Maryland homeowner.
- If 2,500 jobs, or homes, are completed per year, it is equivalent to saving 8,500,000 kWh, or \$1.2 million annually in Maryland.
- Homes are healthier and safer.
- Program provides workforce development opportunities for individuals and companies interested in entering the green building industry.
- The Program will develop trained and certified contractors capable of providing whole-house energy services in Maryland. HVAC, insulation, and home improvement contractors will be offered training opportunities and encouraged to become certified by organizations such as the Building Performance Institute ("BPI").

#### Best Practices Example: New York Home Performance with ENERGY STAR

The New York State Energy Research and Development Authority (NYSERDA) developed the first HPwES program in the nation. The program is changing the home energy improvement market by introducing a 'one-stop shopping' approach to make the process as easy as possible for homeowners. NYSERDA works with a national lending program to offer a simplified low interest loan application that can be processed on-site by the contractor. Over 100 contractor firms are qualified to offer the program to homeowners and 250 technicians have been certified as analysts and installers. NYSERDA estimates the program generated more than 700,000 kilowatt hours and \$115,000 in electricity savings in the first two years. In 2007, the program costs were \$7 million while the lifetime savings from this investment were \$13 million.

# **EmPOWERing Households**

# **Residential Renewable Energy Grants**

# **Program Description**

The solar, wind and geothermal grants program provides financial incentives for the installation of small renewable energy systems. Renewable energy systems like solar panels can be located directly on the building or site where the electricity is used – reducing the need to get electricity from the grid. These systems provide price stability, alleviate congestion on the grid, and are a reliable source of pollution free energy.

## **Target Market**

This program is directed toward all Marylanders who have the ability to install a small renewable energy system on their home.

# **Incentive Strategy**

MEA will use the funds to supplement the existing grant programs, whose funding does not meet demand.

- For solar and wind, the grant amount is \$2,500 per kw for up to 4 kw with a maximum amount of \$10,000.
- For geothermal the grant amount is \$1,000 per ton, with a maximum grant amount of \$3,000.

# **Implementation Strategy**

The Maryland Energy Administration (MEA) will administer grants in the current fiscal year. The funds will be used to serve the people currently on the waiting list, and new applicants.

# **Marketing and Awareness**

Contractors that install these systems market the grant program heavily. Current demand for renewable grants is high. MEA's website has been and continually is updated to reflect the most current information regarding the grants.

## **Best Practices Example: Delaware Green Energy Fund**

Delaware provides up to a 50 percent rebate for the installation for solar, wind and geothermal energy through its Green Energy Fund. The Green Energy Fund is paid for by a surcharge on utility bills and is administered by the Delaware Energy Office.

#### Best Practices Example: Connecticut Clean Energy Fund

Connecticut, through the Connecticut Clean Energy Fund provides rebates for solar. The residential rebate is \$5,000 per kilowatt for up to five kilowatts, and \$4,300 per kilowatt for the next five kilowatts. The maximum grant amount is \$46,500.

# **EmPOWERing Low-to-Moderate Income Households**

# **Low-Income Energy Assistance**

# **Program Description**

The Strategic Energy Investment Act of 2008 provides for energy assistance to Maryland's low-income residents. Specifically, the statute requires that 17% of the moneys be "transferred to the Department of Human Resources to be used for the Electric Universal Service Program and other electricity assistances programs in the Department of Human Resources." This assistance will be allocated by DHR to help ensure that no Marylander has to spend a cold winter day or hot summer day without electricity.

In addition to bill payment assistance, the SEIF will also be used to reduce low income family's electricity bills through the targeted energy efficiency programs discussed in the section on EmPOWERing Low Income Families.

## **Target Market**

This program is directed toward the low-income community in Maryland and will benefit those who otherwise would have difficulty paying their electricity bills.

## **Implementation Strategy**

During FY09, DHR in coordination with MEA, will use the SEIF to provide approximately \$5.54 million in assistance with paying electric bills (assumes two auctions generating \$16.3 million each). These funds will supplement DHR's existing funds to help Marylanders during this time of economic uncertainty.

# Implementation Strategy

DHR in coordination with the Maryland Energy Administration (MEA) will administer the assistance in the current fiscal year. The funds will be allocated through DHR's Electric Universal Service Program (EUSP).

# **Program Benefits**

- These credits, along with the low income focus of energy efficiency programs, will ensure that no Marylander is left behind.
- Helps those most in need, even if heat is paid as part of the rent.
- This assistance will:
  - Help pay past due electric bills
  - Help with energy efficiency measures AND
  - o Reduce future electric bills
- When coupled with the increased funding for the Low Income Home Energy Assistance Program this year, this assistance will enable Maryland's low income households to meet their immediate and future energy needs.

# **EmPOWERing Low-to-Moderate Income Households**

# **Low-to-Moderate Income Energy Efficiency Retrofits**

# **Program Description**

This program will provide, at no or low cost, energy efficiency home improvements for low and moderate income families to reduce their energy bills. This program will utilize a two prong strategy: First, MEA will expand the current Assisted Home Performance program run in cooperation with the Department of Housing and Community Development to serve low-to-moderate income families. Second, MEA will provide additional funds for minor building shell improvements (up to \$1,000) in both the DHCD Weatherization Program and in the Assisted Home Performance program to increase the number of homes eligible to receive energy efficiency services.

The primary objective of the Assisted Home Performance with ENERGY STAR (AHPwES) Program is to motivate low-to-moderate income residential energy consumers to use a whole-house or whole-building approach to reducing energy consumption when considering improvements such as remodeling, new heating and air conditioning equipment, replacing windows, or adding insulation. Rather than focusing on a single component, the low-to-moderate income customer is provided with a partially-to-wholly subsidized assessment of how a combination of improvements, such as sealing air and duct leaks, adding insulation, improving the HVAC system and upgrading lighting and appliances will result in a more comfortable residence, with lower energy consumption.

The condition of many low-income homes prevents energy efficiency or weatherization repairs to be conducted on thousands of homes in Maryland. A portion of the funding from this program would provide money (up to \$1,000 per structure) for specific building envelope repairs to allow for homes to be made more energy-efficient. Funds would be available to homes eligible for the Assisted Home Performance Program as well as the DHCD Weatherization program.

## **Target Market**

The target market for this program is low and moderate income customers. The definitions of low and moderate income will be developed by regulation. According to the Department of Housing and Community Development (DHCD), 2008 Maryland State Median Income (SMI) is \$81,700. Currently, MEA is considering classifying low-income as households with incomes less than 50 percent of SMI, or \$40,850 and moderate income as incomes less than 80 percent of SMI, or \$65,360. MEA is also investigating whether or not to base the income thresholds on family size and Area Median Income instead of State Median Income. While all low-to-moderate homeowners will be eligible to participate in this Program, special emphasis will be placed on homeowners with above average energy bills. In addition, the Program will work with single-family and multi-family property owners who rent their properties to low-to-moderate customers to enable those homes to participate in the Program.

#### **Incentive Strategy**

Unlike the regular HPwES program, homeowners participating in the Assisted Program will receive higher levels of incentives for the energy assessment and the improvements depending on their household income. The incentives will take the form of a direct rebate for a certain percentage of the project cost. Low-income homeowners will receive the most cost-effective energy efficiency improvements at no cost.

In addition, MEA will coordinate incentives offered by utilities with incentives available through the Strategic Energy Investment program. Funds would be available for both the Assisted Home Performance Program and DHCD weatherization program to pay for the cost differential between standard HVAC heating units and ENERGY STAR qualified units.

#### **Implementation Strategy**

Low and moderate income consumers would participate if they are interested in doing renovations to their home including remodeling, updating or replacing their HVAC and/or water heating system, siding, windows, etc. Participants will be directed to the program through the Maryland Home Performance website, DHCD's website and associated programs, the Department of Human Resources' website and associated programs, and through networks of organizations serving low and moderate income populations.

# **Measurement & Verification Strategy and Program Evaluation**

Energy savings estimates for projects in this program will be available from the U.S. EPA approved software programs used by the contractors to evaluate customer's homes. Field verification of measure installation will be made for a statistically significant sample of projects.

## **Program Benefits**

- Low-Income customers receive the most cost-effective improvements at no cost.
- Homeowners save an average of 20 percent on their annual energy bill after participating in the HPwES program. This equates to approximately \$400 annually for a Maryland homeowner.
- If 2,500 jobs, or homes, are completed per year, it is equivalent to saving 8,500,000 kWh, or \$1.2 million annually in Maryland.
- Homes are healthier and safer.
- Program provides workforce development opportunities for individuals and companies interested in entering the green building industry.
- The Program will develop trained and certified contractors capable of providing whole-house energy services in Maryland. HVAC, insulation, and home improvement contractors will be offered training opportunities and encouraged to become certified by organizations such as the Building Performance Institute ("BPI").

## Best Practices Example: New York Assisted Home Performance with ENERGY STAR

The Assisted Home Performance with ENERGY STAR (AHPwES) program was developed by the New York State Energy Research and Development Authority (NYSERDA). It targets families earning below 80 percent of the state median income. Through the program, 10 regional contractor teams receive training and certification in building diagnostics and installation of whole-house performance improvements – the same training as required for the HPwES program. Eligible households receive a comprehensive energy assessment, financing through low-interest loans, a 50 percent NYSERDA subsidy of project costs, and installation of recommended efficiency measures. In 2007, program costs were \$6.3 million while lifetime savings from this investment were \$10.2 million.

# **EmPOWERing Low-to-Moderate Income Households**

# Community Energy Efficiency Low-to-Moderate Income Grants

#### **Program Description**

Local governments and nonprofit organizations serve their residents most closely, and best understand the needs specific to a geographic location or target audience. MEA would provide grants to allow local governments and nonprofits to identify specific needs and receive financial assistance to implement energy efficiency plans and programs.

Grants may fund a wide range of projects some of which could include: purchase and installation of an ENERGY STAR qualified heating and cooling system; purchase and installation of an energy efficient refrigeration system at a food bank; or funding for a neighborhood energy efficiency campaign that would install low-cost energy efficiency measures such as CFL's, weather stripping, efficient shower heads and foam sealant.

#### **Target Market**

These grants are targeted towards local governments and non-profits with the knowledge and experience to develop and implement innovative programs to serve low-to-moderate income communities and individuals.

#### **Incentive Strategy**

The incentive strategy and structure varies depending on the proposed plan of action. Incentives are structured to support projects that:

- Improve energy efficiency
- Implement energy conservation plans and/or behavior
- Maximize energy savings for the investment incurred

## **Implementation Strategy**

The Maryland Energy Administration (MEA) will administer competitive grants based on the availability of funds to local governments and non-profits. Projects will be selected based upon energy and demand savings, while ensuring geographic diversity. Marketing of the program will occur through the Maryland Association of Counties; the Maryland Municipal League; the Maryland Association of Non-Profit Organizations as well as a variety of housing and community organizations.

## **Program Benefits**

This program will provide funding a wide variety of local government and community organizations that already have close ties to low-to-moderate income communities in Maryland. This will provide a quicker program start up to implement energy efficiency opportunities in Maryland.

# **EmPOWERing Low-to-Moderate Income Households**

# The Jane E. Lawton Conservation Loan Program for Low-to-Moderate Income

#### **Program Description**

The Jane E. Lawton Conservation Loan Program, named for the late Delegate Lawton who was known for her dedication to the natural environment and energy efficiency, provides below market revolving loan packages to encourage the investment by businesses, local governments, and non-profit organizations in energy efficiency and renewable energy. The Jane E. Lawton Conservation Loan Program combined the Community Energy Loan Program and the Energy Efficiency and Economic Development Loan Program into one entity. MEA is in the process of developing regulations to establish financial security requirements, depending on the type of loanee. This program can also leverage funds available from private markets.

#### **Target Market**

This program is targeted towards Local Governments and Non-profits that focus on the needs of the low-to-moderate income community.

#### **Incentive Strategy**

Financing continues to be a major barrier to implementation of energy efficiency projects. Local governments and non-profits are extremely busy in pursuit of their core goals and programs. Rising energy costs are eating into their strained budgets while funds for low-income programs mostly focus on other basic needs, such as food, clothing, and health care. Rarely are there enough funds available to make investments in energy efficiency so communities and residents can so money. Low-interest loans for these projects can be provided so that these projects can be implemented.

#### **Implementation Strategy**

The Community Energy Loan Program (CELP) has existed since 1989 and has provided 58 loans to local governments and non-profits for over \$16 million, with annual savings of almost \$4 million for the organizations. Local governments and non-profits will apply through a standardized application process with MEA.

Monitoring and verification can be done through the energy services providers or through regular reporting of energy use by the loan recipients. Local housing authorities, affordable housing providers, non-profits and others serving the low-to-moderate income community would be targeted.

#### **Program Benefits**

- Readily available source of access to below market rate loans for energy related projects
- Financial assistance through loans will provide faster returns on investment
- Lower energy costs due to the installation of efficiency and renewable measures
- Lower emission of greenhouse gases and other pollutants
- Encourages the development of innovative energy technologies
- Provides for local job creation
- Improves State and national energy security
- Improvements can make housing truly affordable

• Allows funds saved from energy improvements to be used to further agencies' missions

## **Best Practices Example: Maryland Community Energy Loan Program**

The CELP program, which was rolled into the Jane E. Lawton Conservation Loan Program on July 1, 2008, was originally launched in 1989 and has provided over \$16 million in loans to 58 organizations. These have included schools, hospitals, local governments, museums, YMCAs, and a variety of other non-profits. These organizations have saved over \$4 million annually and \$20 million cumulatively, funds that they have used to implement their core mission, rather than on energy costs. The program included:

- Up to 8 Years to Repay
- No Penalty for Prepayment
- Deferred Repayment for one year to allow for Completion of Project
- Can be used as Financing for an Energy Performance Contract
- Below market rates, nominal application and closing fees

# **Specialized Industrial & Commercial Energy Assessments**

## **Program Description**

This program will offer energy assessments to industrial facilities.

# **Target Market**

This program is targeted towards industrial facilities in areas where energy assessments are not being offered in the local utility's EmPOWER Maryland plan. In addition, this program will be made available to industrial facilities that are not eligible for energy assessments through EmPOWER Maryland due to unique electricity rate structures.

## **Incentive Strategy**

MEA will cost share the price of the energy assessment with the industrial facility, up to a defined maximum MEA contribution. To encourage industrial facilities to implement energy savings measures identified through the assessments, MEA will refund the industrial facility's cost share of the energy assessment costs if the facility implements measures that result in at least 50% of the identified potential savings.

## **Implementation Strategy**

Program implementation will be provided through a third party vendor. The implementation vendor will be responsible for selecting the energy assessment contractors, ensuring assessment quality, and reporting assessment results to the customer and MEA. The implementation vendor will also be responsible for final verification of the energy savings achieved through the assessment.

#### **Benefits**

The energy assessments provided through this program will give industrial facilities access to energy efficiency expertise that may not exist within their organizations.

#### Marketing/Awareness

MEA will work with the local electric utilities to identify industrial facilities that do not have access to an energy assessment through EmPOWER Maryland programs. Once these facilities are identified, MEA will leverage the local utility account managers to communicate the energy assessment program available through MEA.

## Best Practices Example: NYSERDA FlexTech Program

The New York State Energy Research and Development Authority FlexTech program is designed to improve the productivity of industrial facilities with annual energy bills greater than \$75,000. Energy efficiency analyses are one of the services that the FlexTech program is able to provide through the use of contracted engineering firms. As an example, the FlexTech program conducted an energy efficiency analysis of the ITT Industries Heat Transfer plant in Buffalo, NY. The energy efficiency analysis identified \$262,000 in annual potential energy savings. The energy measures recommended through this project had a payback period of 2.3 years.

# **Clean Energy Workforce Training**

# **Program Description**

MEA will provide training to a wide range of people offering services in the clean energy industry. The primary goal of these trainings is to educate workforce members about the importance of energy efficiency and renewable energy and how to properly sell, install, operate, and value these products and services. The secondary goal of the trainings is to encourage people just entering the workforce or people seeking a career change to choose the clean energy industry to in which work.

## **Target Market**

Members of any industry that can impact energy efficiency and clean energy in homes, businesses, and transportation. These industries include but are not limited to: builders, building operators, contractors, energy auditors, school teachers and administrators.

## **Incentive Strategy**

The incentive for this program is to provide free or subsidized training seminars to members of different industries.

# **Implementation Strategy**

Program partners would be stakeholders from the aforementioned target markets. This will result in: 1) better trainings, 2) more publicity for the trainings, 3) possible low- or no-cost venues for the trainings, and 4) continuing education credits for participants in the trainings.

MEA would hire an outside contractor to conduct evaluation, measurement and verification for the various trainings. Possible measures of success include: 1) number of people trained, 2) expected energy savings resulting from each trained individual, and 3) expected number of people reached by each trained individual.

A potential low-income component of this program would be to target low-income communities to participate in the trainings and to offer the trainings at no charge. The trainings could serve as a type of workforce development making attendees more competitive in the market including people for whom English is a second language.

## **Program Benefits**

- Participants will be more able to compete in the workforce for jobs in the clean energy industry.
- Expands workforce capable of doing work to reach the EmPOWER Maryland goals. Without a
  trained workforce, EmPOWER Maryland will not succeed. The American Council for an Energy
  Efficiency Economy estimates that meeting the EmPOWER Maryland goal will create 8,000 jobs
  by 2015.

- By educating more people about energy efficiency and renewable energy, greater economic value is assigned to buildings that are more energy-efficient and that take advantage of clean energy.
- MEA could fulfill the need for more training on energy efficiency and green building skills, which are not widely available.
- Provides potential funding to small businesses to implement training programs through the competitive procurement process.

# Farm Energy Technical Assistance & Incentive Program

#### **Program Description**

This statewide project will provide energy assessments to Maryland farms, and offer cash rebates for the installation of qualifying farm energy efficiency measures. This project is the extension of the successful Maryland Farm Energy Site Assessment Program, Phases I and II, which were funded in part by MEA. This statewide program will have a two-tiered approach to capture energy savings for Maryland agricultural producers. Tier 1 will offer technical assistance and/or rebates on energy efficient equipment. Tier 2 will offer farm energy assessments to qualifying producers who have substantial potential energy savings, and/or rebates on energy efficient equipment.

The program will work closely with Maryland equipment manufacturers, equipment dealers, the extended agricultural community, and farmers. Additionally, the program will leverage other available sources of energy efficiency funds for farms, including any applicable utility energy efficiency programs, USDA Rural Development's energy efficiency grants, and MARBIDCO's Rural Business Energy Efficiency Program.

#### **Target Market**

Maryland's 12,000 farms spent about \$26 million on electricity in 2008<sup>1</sup>. In 1997, the most recent year for which itemized data are available, Maryland farms spent about \$33 million on petroleum products, gasoline, diesel fuel, natural gas, LP gas, kerosene, fuel oil, and other fuels.<sup>2</sup>

This program will address energy efficiency in all fuels, meaning these rural Marylanders will be able to reduce the energy uses that are most important to them. Since 2006, energy assessments have been provided for 75 Maryland farms. Together, Phases I and II have identified nearly 2 million kWh savings, and over 63,000 gallons of propane savings.

Services offered will include technical assistance, energy assessments, and rebates. All Maryland farms will be eligible to receive technical assistance; all Maryland farms will be able to receive rebates provided their project meets a minimum energy savings threshold. Energy assessments will be reserved for farms that have higher energy use and/or higher energy savings potential, *and* are committed to installing measures as a result of the assessment.

#### **Incentive Strategy**

The program will provide cost-shared energy assessments for Maryland farms. Farmers will provide a percentage of the assessment cost, with the fee reimbursed if they install any of the assessment's

<sup>&</sup>lt;sup>1</sup> http://www.eia.doe.gov/cneaf/electricity/page/sales revenue.xls Comparison of average retail residential electricity price between 1997 and 2008 shows 47% increase in costs. USDA 1997 Census of Agriculture, Table 3: Farm Production Expenses for Maryland shows \$17.7 million in farm electricity expenditures.

<sup>&</sup>lt;sup>2</sup> UDSA 1997 Census of Agriculture, Table 3: Farm Production Expenses for Maryland

recommendations. This structure essentially provides a "kicker" for farmers to implement measures as a result of the assessment, leading to a high implementation rate resulting from the assessments.

The program will provide a calculated per- kWh/ per - BTU incentive for farms who implement recommended energy efficiency measures. Energy savings will be based on sound engineering calculations as well as an installation verification process.

#### **Implementation Strategy**

Program implementation will be provided by a third-party contractor. This contractor will be responsible for developing a marketing plan and materials, implementing the marketing plan to promote the opportunity to the target audience, recruiting interested farmers, providing the technical assistance and energy assessments, managing the implementation of measures, paying incentives to farms, and reporting program results to MEA.

Because this is an expansion of a successful series of smaller projects, much of the program design and strategy is already in place. Therefore, this program can begin implementation in early 2009 and begin delivering energy savings to Maryland agricultural producers shortly thereafter.

## Marketing/Awareness

The marketing strategy will leverage Maryland agricultural partners to distribute program information to potential participants. In the previous two programs, these partners have included Maryland Department of Agriculture, USDA Natural Resources Conservation Service, Resource Conservation & Development Councils, Conservation Districts, USDA Rural Development, MARBIDCO, and USDA Sustainable Agriculture Research & Education (SARE) . MEA and the contractor will leverage these partners to provide additional funds for some aspects of the program, and to provide in-kind marketing and program support.

This program will be directly marketed to farmers through mailings, phone calls, and personal farm visits. In order to reach as many farmers as possible, the contractor will work closely with equipment manufacturers, equipment dealers, and the extended agricultural community to promote the program. In addition to the program partners mentioned above, the agricultural community includes University Extension, farm equipment dealers, Farm Bureau, and other organizations farmers know and trust.

The program will secure placement of press releases and program case studies in the local agricultural media, ensuring technology transfer. Program information will also be available at farm shows and other agricultural events. The program will maintain a dedicated hotline to facilitate participation, answer farmer questions, and coordinate with other partners.

# Best Practices Example: Maryland Farm Energy Site Assessment Program, Phases I & II

The 2006 Maryland Farm Energy Site Assessment Program, Phase I, provided 25 energy assessment reports to producers on the Eastern Shore. These 25 farms were primarily poultry operations, and the scope was limited to farmers who had requested energy assessments through the Federal Conservation Security Program (CSP). The Phase I program identified energy savings and production benefits of

471,700 kWh and 46,000 gallons of propane. Together, these savings represent \$115,000 in annual energy cost savings and \$319,800 in annual production benefits.

Phase II of the Program began in April 2007 with a goal of 50 assessments to be completed in Western Maryland. \$50,000 in incentive funds are available for Phase I and Phase II producers who implement measures as a result of the energy assessments. As of October 2008, the program has delivered all 50 assessments to producers and is in the process of completing follow-up interviews with the producers. To date, Phase II has identified 1.5 million kWh and 17,000 gallons of propane savings.

These two programs have developed a successful, partnership-based infrastructure to deliver energy efficiency to an often-overlooked sector of the economy. The statewide program will build upon the success of its predecessors to identify and deliver energy savings to Maryland agriculture.

# **Small Business Renewable Energy Grants**

#### **Program Description**

The solar, wind and geothermal grants program provides financial incentives for the installation of small renewable energy systems. Renewable energy systems like solar panels can be located directly on the building or site where the electricity is used – reducing the need to get electricity from the grid. These systems provide price stability, alleviate congestion on the grid, and are a reliable source of pollution free energy.

# **Target Market**

This program is directed toward all Maryland businesses that have the ability to install small renewable energy systems on their homes.

# **Incentive Strategy**

MEA will use the funds to supplement the existing grant programs, whose funding does not meet demand.

- For solar and wind, the grant amount is \$2,500 per kw for up to 4 kw with a maximum amount of \$10,000. Historically, the average grant amount is approximately \$6,500.
- For geothermal, the grant is \$1,000 per ton, with the maximum grant amount of \$3,000.

# **Implementation Strategy**

The Maryland Energy Administration (MEA) will administer grants in the current fiscal year. The funds will be used to serve the people currently on the waiting list, and new applicants.

#### **Marketing and Awareness**

Contractors that install these systems market the grant program heavily and demand for grants is high. MEA's website has been and continually is updated to reflect the most current information regarding the grants.

#### Best Practices Example: Delaware Green Energy Fund

Delaware provides up to a 50 percent rebate for the installation for solar, wind and geothermal energy through its Green Energy Fund. The Green Energy Fund is paid for by a surcharge on utility bills and is administered by the Delaware Energy Office.

# **Best Practices Example: Connecticut Clean Energy Fund**

Connecticut, through the Connecticut Clean Energy Fund provides rebates for solar. The rebate for non-profit and government organizations is \$5,000 per kilowatt for up to 10 kilowatts (\$50,000).

# The Jane E. Lawton Conservation Loan Program

#### **Program Description**

The Jane E. Lawton Conservation Loan Program, named for the late Delegate Lawton who was known for her dedication to the natural environment and energy efficiency, provides below market revolving loan packages to encourage the investment by local governments, non-profit organizations, and businesses in energy efficiency and renewable energy. The Jane E. Lawton Conservation Loan Program combined the Community Energy Loan Program and the Energy Efficiency and Economic Development Loan Program into one entity. MEA is in the process of developing regulations to establish financial security requirements, depending on the type of loanee. This program can also leverage funds available from private markets.

#### Target Market

Local Governments, Non-profits, and Businesses

## **Incentive Strategy**

Financing continues to be a major barrier to implementation of energy efficiency and renewable energy projects. Local governments, non-profits, and businesses are extremely busy in pursuit of the core goals. And rising energy costs are eating into their strained budgets. Low-interest loans for these projects can be the assistance that allows these projects to move forward.

#### **Implementation Strategy**

The Community Energy Loan Program (CELP) has existed since 1989 and has provided 58 loans to local governments and non-profits for over \$16 million, with annual savings of almost \$4 million for the organizations. Combining it with the Energy Efficiency and Economic Development Loan Program to form the Jane Lawton Loan Program allows this current program to continue to function quickly and efficiently. Local governments and non-profits know about the program through outreach and through energy services providers. Monitoring and verification can be done through the energy services providers or through regular reporting of energy use by the loan recipients.

# **Program Benefits**

- Readily available source of access to below market rate loans for energy related projects
- Financial assistance through loans will provide faster returns on investment
- Lower energy costs due to the installation of efficiency and renewable measures
- Lower emission of greenhouse gases and other pollutants
- Encourages the development of innovative energy technologies
- Provides for local job creation
- Improves State and national energy security

# Best Practices Example: Maryland Community Energy Loan Program

The CELP program, which was rolled into the Jane E. Lawton Conservation Loan Program on July 1, 2008, was originally launched in 1989 and has provided over \$16 million in loans to 58 organizations. These

have included schools, hospitals, local governments, museums, YMCAs, and a variety of other non-profits. These organizations have saved over \$4 million annually and \$20 million cumulatively, funds that they have used to implement their core mission, rather than on energy costs. The program included:

- Up to 8 Years to Repay
- No Penalty for Prepayment
- No Security Required
- Deferred Repayment for one year to allow for Completion of Project
- Can be used as Financing for an Energy Performance Contract
- Below market rates, nominal application and closing fees

# **Community Energy Efficiency Grants**

## **Program Description**

Local governments serve their residents most closely, and best understand the needs specific to a geographic location. These grants would allow local governments and nonprofits to identify specific needs and receive financial assistance to implement the plans and programs. Activities that conserve energy or increase energy efficiency are eligible.

#### **Target Market**

These grants are targeted towards local governments and non-profits.

## **Incentive Strategy**

The incentive strategy and structure varies depending on the proposed plan of action. Incentives are structured to support projects that:

- Improve energy efficiency and
- Implement energy conservation plans

## Implementation Strategy

The Maryland Energy Administration (MEA) will administer competitive grants based on the availability of funds to local governments and non-profits. Projects will be selected based upon energy and demand savings, while ensuring geographic diversity. Marketing of the program will occur through the Maryland Association of Counties, the Maryland Municipal League, and the Maryland Association of Non-Profit Organizations.

#### **Program Benefits**

This program will provide a valuable additional tool to promote affordable, reliable, and clean energy in Maryland. While many projects are suitable for loans, due to their significant energy savings as a source for repayments, some projects, such as non-profits doing energy efficiency projects in low-income neighborhoods, do not. The ability to offer grants, as well as loans, will ensure that a wide variety of projects are able to be implemented.

# **Community Renewable Energy Grants**

## **Program Description**

Local governments serve their residents most closely, and best understand the needs specific to a geographic location, critical to renewable energy projects. These grants would allow local governments and nonprofits to identify specific renewable energy needs and receive technical and financial assistance to implement the plans and programs.

#### **Target Market**

Local governments and non-profits

## **Incentive Strategy**

The incentive strategy and structure varies depending on the proposed plan of action. Incentives are structured to support projects that:

- Provide clean energy from renewable sources,
- Enhance the clean energy industry in Maryland, and
- Reduce dependence on foreign sources of fuel.

# **Implementation Strategy**

The Maryland Energy Administration (MEA) will administer competitive grants based on the availability of funds to local governments and non-profits. Projects will be selected based upon the amount of energy generated from renewable sources, while ensuring geographic diversity. Marketing of the program will occur through the Maryland Association of Counties, the Maryland Municipal League, and the Maryland Association of Non-Profit Organizations.

#### **Program Benefits**

This program will provide a valuable additional tool to promote affordable, reliable, and clean energy in Maryland. Projects that have longer term paybacks due to significant costs of renewable energy systems will benefit from grants. The ability to offer grants will ensure that a wide variety of projects are able to be implemented. Examples of potential projects include:

- Installing a solar electric system on a Howard County landfill to power a nearby school,
- Developing a clean energy demonstration park in Annapolis, and
- Using solar and wind systems to move a community off the grid.

# **Grants for Alternative Fuels & Renewable Energy**

#### **Program Description**

The transportation sector is responsible for 32 percent of Maryland's greenhouse gas emissions according to the Maryland Climate Change Commission. Reducing emissions from this sector is critical to achieving reduction in greenhouse gas emissions. Existing and technologies available in the near term will allow us to meet our transportation needs with fewer carbon dioxide emissions, and with reduced reliance on petroleum imports.

This program will provide competitively awarded grants to support advanced transportation technologies and alternative fuels. Today, alternative fuels such as biodiesel, ethanol, electricity, compressed natural gas and hydrogen are available on a limited basis. Transportation grants will improve the availability of these fuels and technologies in the marketplace. These grants will also support plug-in hybrid vehicles and electric vehicles that are on the horizon.

Grants will also support renewable energy project development. Small grants can often make projects economically viable. On a selective basis, MEA will make grants to help finance renewable energy projects. The program will support renewable energy classified as Tier 1 under the Renewable Energy Portfolio Standard.

#### **Target Market**

This program is targeted towards local governments, fuel providers, service station owners, project developers and other entities.

#### **Incentive Strategy**

MEA will market the program to local governments, non-profits and other entities. Priority will be given to projects that:

- Increase alternative fuel infrastructure.
- Maximize the reduction of petroleum through the use of alternative fuels or advanced technologies.
- Support alternative fuel projects that reduce greenhouse gas emissions.
- Increase the generation of electricity from Tier 1 renewable resources located in Maryland.

#### Implementation Strategy

The Maryland Energy Administration (MEA) will administer competitive grants based on the availability of funds to local governments, businesses and non-profits. Projects will be selected based upon greenhouse gas emission reductions, petroleum and fossil fuel displacement potential and the projects ability to support State goals and policies, while ensuring geographic diversity. Marketing of the program will occur through the Maryland Association of Counties; the Maryland Municipal League; and the Maryland Association of Non-Profit Organizations.

# **Benefits**

- Reduces petroleum/fossil fuel consumption and greenhouse gas emissions.
- Increases energy security and economic activity including job creation.
- Examples:

According to Argonne National Laboratory, on a life-cycle analysis basis, corn-based ethanol production and use reduces greenhouse gas emissions by up to 52% compared to gasoline production and use. Cellulosic ethanol use could reduce GHGs by as much as 86%.

A blend of 20% biodiesel has been shown to reduce particulate matter emissions 10%, CO 11%, and unburned hydro-carbons 21%.

The U.S. Environmental Protection Agency has called the natural gas Honda Civic GX the cleanest internal-combustion vehicle on Earth.

If your home electricity rate is \$0.13 per kWh, it would cost \$0.03 cents per mile for AC operation. You would pay \$0.12 per mile for gasoline in a vehicle that gets 25 miles per gallon when gasoline sells for \$3 per gallon.

## **Best Practices Example: NYSERDA Bio-Fuel Station Initiative**

NYSERDA provides financial assistance and technical information to encourage fleets to purchase alternative-fuel vehicles (AFVs) and install fueling facilities or charging stations. Vehicles powered by natural gas, propane, and electricity, including certain hybrid-electric vehicles, are eligible under most of the programs NYSERDA offers. Incentives are available to encourage the use of bio-fuels such as ethanol and biodiesel. NYSERDA also has programs to encourage the use of emission reduction technologies and anti-idling technologies for diesel vehicles. Below are two examples of NYSERDA transportation programs.

NYSERDA runs **The Bio-Fuel Station Initiative: Driving Energy Independence for the Empire State.** The objective of this program is to increase the number of retail E85 and Blended Biodiesel service stations in New York State through a comprehensive approach. This program solicits applications for funds to purchase and install equipment to store and dispense E85 Ethanol and Blended Biodiesel (Biofuels). It is estimated approximately 300 new retail E85 Ethanol and/or Blended Biodiesel fueling stations will be opened as a result of this initiative. The Bio-Fuel Station Initiative provides a reimbursement of 50 percent of the costs, up to \$50,000 per site, for new installations of Biofuels dispensing equipment, storage tanks, and associated piping equipment.

NYSERDA also runs a program that supports the development, demonstration, and commercialization of advanced transportation products, systems and services. The program objectives are to provide energy, environmental and economic benefits in New York State as follows:

• **Energy benefits** are sought in the form of reduced dependence on petroleum, such as may be achieved by use of alternative fuels, increased efficiency of vehicles and transportation systems, or intermodal shifts in user demand.

- **Environmental benefits** are sought in the form of reduced air pollution, especially if the product or system assists New York State in complying with federal clean air laws, and reductions in other forms of transportation-related pollution, including greenhouse gases.
- **Economic benefits** are sought in the form of creation or retention of jobs in New York State, with emphasis on employment in manufacturing and technical services. Benefits also are sought in the form of reduced life-cycle costs of transportation vehicles and systems.

Examples of the technologies covered under this program include; advanced vehicles and components, energy management and storage systems, alternative fuels and fueling systems, rail and transit, intelligent transportation systems, infrastructure, heavy-duty and commercial vehicles and electrified transportation.

## Best Practices Example: Above-Market Payments for Renewable Energy

Payments to Offset Above-Market Costs: Some funds have agreed to pay the above-market costs for various renewable energy projects. The Energy Trust of Oregon, for instance, set aside funds to pay utilities for the above-market costs of two biomass projects representing 6 MW and a 75 MW wind project. Rising fossil fuel prices eventually made the renewable energy projects economically attractive, and the funds for the above-market payments were not needed. The California RPS works in a similar manner, where 51.5 percent of the California's public benefits fund (about \$69.5 million annually) for renewable energy is reserved for the above-market costs of renewable energy projects that are selected in utility renewable energy competitive bidding solicitations. The California Energy Commission (CEC) can cap the above-market costs that it will issue. As with Oregon, higher fossil fuel prices have limited the need for above-market payments, and only one application has been made to the CEC.

# <u>State Agency Loan Program – New Loans</u>

#### **Program Description**

The State Agency Loan Program (SALP) is a revolving loan program administered by the Maryland Energy Administration. SALP provides loans for energy efficiency improvements in State owned facilities. SALP loan repayments are made from the borrowing agency's fuel and utility budget using the energy costs avoided through the implementation of the project.

## **Target Market**

The SALP program is for State agencies implementing projects to reduce energy consumption.

#### **Incentive Strategy**

State agencies pay zero percent interest on the loan and a one percent administration fee.

#### **Implementation Strategy**

MEA will continue to administer the SALP program moving forward. Additional funding for SALP through the Strategic Energy Investment Fund would enable Maryland to initiate additional projects to reduce state energy consumption during fiscal year 2009.

The SALP program effectiveness will continue to be evaluated annually as part of the capital budget review process.

#### **Benefits**

- Readily available source of funding to help State Agencies meet the energy consumption reductions outlined in the State Building Energy Efficiency and Conservation Act
- Reduces the energy costs required to operate State buildings
- Lower emission of greenhouse gases and other pollutants by State facilities

# **Marketing/Awareness**

SALP will be advertised to each State Agency through the network of State Agency energy coordinators. SALP information will also continue to be advertised on the MEA website.

# Best Practices Example: Maryland State Agency Loan Program

Since the SALP program was launched in 1991, the revolving loan program has provided over \$16.5 million in loans to State Agencies for 61 energy related projects. Thus far, the SALP-funded energy projects have saved the State over \$20.1 million in energy costs.

# **State Agency Energy Efficiency Infrastructure**

## **Program Description**

Energy Performance Contracting (EPC) is a self-funding financing mechanism that allows energy and water conservation projects to be implemented in State facilities without requiring additional capital investment. State agencies finance the costs of an EPC through the State's Master Lease. The cost of the EPC is then repaid from agency energy savings resulting from the project.

This program will use money from the Strategic Energy Investment Fund to make the fiscal year 2009 repayments back to the State's Master Lease for State Agencies participating in ongoing EPCs.

## **Target Market**

State Agencies currently participating in EPCs.

#### **Incentive Strategy**

By making the fiscal year 2009 payments for State Agencies participating in EPCs, operational funds will be made available.

# **Implementation Strategy**

Once approved, MEA will transfer the funds from the Strategic Energy Investment Fund to the State's Master Lease.

## **Program Benefits**

State Agencies will spend less of their 2009 budgets on utility and energy costs allowing budget dollars to be used for cost containment.

# Strategic Planning for Maryland's Energy Future

# **Program Description**

The Strategic Planning program is designed to provide analysis and direction across a wide range of state energy issues. This includes analysis of supply and demand for electricity, natural gas, home heating oils and transportation fuels. The primary objective is to evaluate Maryland's comprehensive energy picture and to establish policy direction that results in reliable, affordable and clean energy for all Maryland consumers. Strategic planning ensures that the most effective policies to provide energy security, control energy costs and to mitigate environmental impact are implemented in a timely and effective manner. Rather than focusing on a single program, strategic planning provides the opportunity to develop and implement broad policy direction to secure Maryland's energy future.

# **Target Market**

Strategic planning concentrates it policy development efforts for the benefit of state agencies and their program managers. By identifying key energy issues and providing optimal approaches, strategic planning is able to ensure policies and programs that ultimately provide benefit to residential, commercial, industrial energy consumers in Maryland.

# **Incentive Strategy**

Strategic planning will ensure coordination of policies that lead to effective use of electric generation, natural gas, home heating oil and transportation fuels within the state.

# **Program Implementation Strategy**

Program implementation and operation will be provided by MEA Staff with the assistance of knowledgeable consulting agencies as needed to implement effective analysis, planning and control functions. The Strategic Planning process will review various approaches and make policy recommendations that support a reliable, affordable and clean energy outcome.

Key elements of the Strategic planning process include the following:

- Development of a comprehensive plan, including information on and analysis of supply and demand for electricity and natural gas, home heating oil, and transportation fuels.
- Evaluation of all economic sectors in the analysis, including residential, small and large commercial, governmental and institutional, industrial, and transportation.
- Identification of potential threats to Maryland's energy security and best practices to minimize Maryland's exposure to both natural and man-made disruptions to our energy supply.
- Analysis of the impact energy policies have on low-income constituents and recommend actions and programs to assist this population.

Analysis of budgetary needs for constructing and implementing such a plan.

# **Program Partners**

Strategic Planning requires a coordinated and cohesive effort among all state agencies to achieve the most effective results. Implicit by this process, MES, MDE, DNR, PPRP, PSC, OPC and other state agencies are partners and have direct input to the process.

#### **Program Benefits**

- Provide Maryland energy consumers with reliable energy supplies at an affordable cost with minimal environmental impact.
- Cost effective use of limited resources to implement effective energy management programs including new generation, efficiency, renewable demand side resources and climate mitigation efforts.

# **Best Practice Example**

Maryland has not updated its state energy plan since 1993. There have been drastic changes in the energy landscape since then, such as utility deregulation and oil and electricity prices reaching an all time high. Other states routinely develop and publish strategic plans to provide state policy guidance. The states of New Jersey, New York and Texas all offer examples of high quality comprehensive energy plans.

# **Maryland Department of the Environment Climate Change Program**

#### **Program Description**

The Climate Change program is administered by the Department of the Environment. The program supports the implementation of the Regional Greenhouse Gas Initiative (RGGI) and other ongoing work by the Department to develop and implement climate change programs through reduction and sequestration of greenhouse gas emissions.

#### **RGGI Inc.**

Maryland has financial obligations to RGGI Inc., a non-profit organization created by the RGGI participating states to implement and coordinate the activities of the RGGI participating states. Each RGGI participating state is responsible for a percentage of RGGI Inc.'s operating costs based on the amount of emissions from that state.

#### **Climate Change Activities**

The Department will continue to develop programs related to the mitigation of greenhouse gases. These activities include ongoing research, development and implementation of greenhouse gas emission reduction programs, and administration of new and existing greenhouse gas regulatory programs.

#### **Program Benefits**

- Reduction of greenhouse gas emissions from reduced demand for electricity and increased availability of electricity generated from renewable energy.
- Preparedness regarding future adaptation needs due to sea level rise.
- Lower energy costs due to the installation of efficiency and renewable measures.
- Lower emission of other pollutants, including ozone.
- Encouraged development of innovative energy and industrial technologies, leading to decreased emissions from industrial manufacturing and reduced waste generation.

# **EmPOWERing Energy Awareness**

# **Public Outreach Campaign**

# **Program Description**

A Public Outreach campaign is essential to the success of the proposed energy efficiency and renewable energy programs. The purpose of the campaign is to educate all Marylanders about opportunities to reduce their electricity bills through energy efficiency, and the opportunity to contribute clean power through a household renewable energy system. Educated consumers make informed choices about the programs that will meet their energy needs, reduce their energy costs and help the environment. MEA will seek to coordinate its awareness campaigns with other entities in Maryland (e.g. electric utilities) to maximize the effectiveness of the campaign.

## **Target Market**

This program is targeted towards all Marylanders.

# **Implementation Strategy**

The proposed outreach campaign represents a strategy that relies on public relations and media messaging to create awareness of the programs. The messaging will be supplemented with paid advertising, printed materials, MEA's web site, and community outreach activities that, when combined, help the consumer make an educated choice on how to cut their energy consumption. As the campaign develops over time, the media mix may evolve with emphasis on different elements based on results. A flexible campaign offers the most appropriate method of managing awareness, and allows the campaign to evolve as consumer acceptance grows and as new programs are developed.

# Sample Outreach Campaign: Energy Efficiency Tools for Libraries

This program will make energy efficiency tools available for loan through Maryland public library systems. Education is a significant component of the effort to reduce energy consumption. By enabling Marylanders to better understand how they consume energy, MEA believes consumers will strive to reduce energy consumption.

Examples of energy efficiency tools that may be available for lending include the following:

- Kill-A-Watt electricity load meters
- Infrared thermometers

# Sample Awareness Campaign for Schools

MEA is partnering with the Maryland State Department of Education (MSDE) to launch a pilot program to educate school facility managers, teachers, administrators, and students in energy conservation and efficiency strategies. As part of Maryland Association for Environmental and Outdoor Education's (MAEOE) Green Schools program, Maryland schools have the opportunity to participate in energy conservation activities.

# **Program Benefits**

- Help consumers through energy saving tips reduce their monthly electricity bills through little to no cost measures.
- Assist Marylanders in understanding of the benefits of these programs to the environment.
- Provide clear, easily understood information so that Marylanders can make informed choices.